

Appl. No. 09/974,638
Amdt. dat d : MAY 5, 2004
Reply to Office Action of APRIL 5, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original): An absorbent product including an absorbent composite, the absorbent composite comprising superabsorbent material, wherein the superabsorbent material comprises superabsorbent particles having a bimodal particle size distribution with large particles having a mass median particle size from about 850 to about 1800 microns and small particles having a mass median particle size from about 50 to about 200 microns.
2. (original): The absorbent product of Claim 1, wherein the large particles have a mass median particle size from about 1000 to about 1600 microns.
3. (original): The absorbent product of Claim 1, wherein the small particles have a mass median particle size from about 65 to about 150 microns.
4. (original): The absorbent product of Claim 1, wherein the superabsorbent particles have an overall mass median particle size of about 60 to about 1750 microns.
5. (original): The absorbent product of Claim 1, wherein the superabsorbent particles have an overall mass median particle size of about 800 to about 1200 microns.
6. (original): The absorbent product of Claim 1, wherein the mass median particle size of the large particles and the mass median particle size of the small particles differs by at least about 500 microns.

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7. (original): The absorbent product of Claim 6, wherein the ratio of the mass median particle size of the large particles to the mass median particle size of the small particles is from about 4:1 to about 36.1.

8. (original): The absorbent product of Claim 7, wherein the ratio of the mass median particle size of the large particles to the mass median particle size of the small particles is from about 6:1 to about 25.1.

9. (original): The absorbent product of Claim 6, wherein the mass median particle size of the large particles is from about 1000 to about 1200 microns, and the mass median particle size of the small particles is from about 50 to about 150 microns.

10. (original): The absorbent product of Claim 6, wherein the mass median particle size of the large particles is from about 1000 to about 1100 microns, and the mass median particle size of the small particles is from about 50 to about 100 microns.

11. (original): The absorbent product of Claim 1, wherein the mass ratio of large particles to small particles is from about 90:10 to about 50:50.

12. (original): The absorbent product of Claim 1, wherein the mass ratio of large particles to small particles is from about 90:10 to about 80:20.

13. (original): The absorbent product of Claim 1, wherein the mass ratio of large particles to small particles is about 85:15.

14. (original): The absorbent product of Claim 1, wherein the superabsorbent material is uniformly distributed within the absorbent composite.

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15. (original): The absorbent product of Claim 1, wherein the absorbent composite comprises from about 20% to about 100% by weight superabsorbent material.

16. (original): The absorbent product of Claim 1, wherein the absorbent composite comprises from about 30% to about 90% by weight superabsorbent material.

17. (original): The absorbent product of Claim 1, further comprising a containment device.

18. (original): The absorbent product of Claim 17, wherein the containment device is a fibrous matrix.

19. (original): The absorbent product of Claim 1, wherein the absorbent composite has a third liquid insult intake time less than about 100 seconds.

20. (original): The absorbent product of Claim 1, wherein the absorbent composite has a third liquid insult intake time less than about 85 seconds.

21. (original): The absorbent product of Claim 1, wherein the absorbent composite has a third liquid insult intake time less than about 60 seconds.

22. (original): The absorbent product of Claim 1, wherein the absorbent composite has a third intermittent vertical wicking pickup time less than about 600 seconds.

23. (original): The absorbent product of Claim 1, wherein the absorbent composite has a third intermittent vertical wicking pickup time less than about 300 seconds.

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24. (original): The absorbent product of Claim 1, wherein the small particles have a swelling time from about 15 to about 35 seconds and the large particles have a swelling time from about 300 to about 700 seconds.

25. (original): The absorbent product of Claim 24, wherein the swelling time of the small particles is about 20 times shorter than the swelling time of the large particles.

26. (original): The absorbent product of Claim 1, wherein the product is a diaper, training pant, catamenial device, incontinence product, wound dressing, delivery system or food packaging.

27. (original): The absorbent product of Claim 26, wherein the product is disposable.

28. (original): An absorbent product including an absorbent composite, the absorbent composite comprising superabsorbent material, wherein the superabsorbent material comprises superabsorbent particles having a bimodal particle size distribution, and wherein the absorbent composite has a third liquid insult intake time less than about 100 seconds.

29. (original): The absorbent product of Claim 28, wherein the absorbent composite has a third liquid insult intake time less than about 85 seconds.

30. (original): The absorbent product of Claim 28, wherein the absorbent composite has a third liquid insult intake time less than about 60 seconds.

31. (original): The absorbent product of Claim 28, wherein the absorbent composite has a third intermittent vertical wicking pickup time less than about 600 seconds.

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32. (original): The absorbent product of Claim 28, wherein the absorbent composite has a third intermittent vertical wicking pickup time less than about 300 seconds.

33. (original): The absorbent product of Claim 28, wherein the superabsorbent material is uniformly distributed within the composite.

34. (original): The absorbent product of Claim 28, wherein the superabsorbent particles comprise small particles having a swelling time from about 15 to about 35 seconds and large particles having a swelling time from about 300 to about 700 seconds.

35. (original): The absorbent product of Claim 34, wherein the swelling time of the small particles is about 20 times shorter than the swelling time of the large particles.

36. (original): The absorbent product of Claim 28, wherein the superabsorbent particles comprise large particles having a mass median particle size from about 850 to about 1800 microns.

37. (original): The absorbent product of Claim 28, wherein the superabsorbent particles comprise small particles having a mass median particle size from about 50 to about 200 microns.

38. (original): The absorbent product of Claim 28, wherein the absorbent composite comprises from about 30% to about 90% by weight superabsorbent material.

39. (original): The absorbent product of Claim 28, wherein the mass ratio of large particles to small particles is from about 90:10 to about 50:50.

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40. (currently amended): An absorbent product comprising superabsorbent material having a bimodal particle size distribution, wherein the superabsorbent material is uniformly distributed within the composite, and wherein the composite has a third liquid insult intake time less than about 100 seconds and a third intermittent vertical wicking pickup time of less than about 600 seconds.

41. (original): The absorbent product of Claim 40, wherein the absorbent composite has a third liquid insult intake time is less than about 85 seconds.

42. (original): The absorbent product of Claim 40, wherein the absorbent composite has a third liquid insult intake time is less than about 60 seconds.

43. (original): The absorbent product of Claim 40, wherein the absorbent composite has a third intermittent vertical wicking pickup time of less than about 300 seconds.

44. (original): The absorbent product of Claim 40, wherein the absorbent composite comprises from about 20% to about 100% by weight superabsorbent material.

45. (original): The absorbent product of Claim 40, wherein the absorbent composite comprises from about 30% to about 90% by weight superabsorbent material.

46. (original): The absorbent product of Claim 40, wherein the product is a diaper, training pant, catamenial device, incontinence product, wound dressing, delivery system or food packaging.

47. (original): The absorbent product of Claim 46, wherein the product is disposable.